

Notice of Allowability

Application No.

09/542,273

Examiner

Liang-che Alex Wang

Applicant(s)

CROW ET AL.

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/11.
2. ☒ The allowed claim(s) is/are 1-7 and 9-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



JEFFREY PWU

SUPERVISORY PATENT EXAMINER

Part of Paper No./Mail Date 20071011

EXAMINER'S AMENDMENT

1. Claims 1-7, 9-25 are allowed.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Eric Stephenson on 10/11/2007.
4. The application has been amended as follow:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Currently Amended)** A communication network, comprising:
a plurality of server devices for providing a plurality of services, respectively, to the network, where each service of the plurality of services has a corresponding service address, and wherein the plurality of services are distinct from each other;
a client device configured to access a first service of the plurality of services by performing at least the following:
accessing a service point map on the client device to obtain a first service address for the first service, and
sending a request for the first service wherein the request comprises the first address for the first service,
wherein the service point map comprises a listing of the plurality of services and their corresponding service addresses, including the first service address;
a service point map manager for generating a new service point map after the corresponding service address for the first service is changed from the first service

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address to a second service address, wherein the new service point map comprises the second service address;

wherein the service point map comprises a client epoch value;

wherein a third service has a corresponding service epoch value, whereby the third service causes the client device to take corrective action at the time that a mismatch is detected between the client epoch value and the service epoch value using executable commands embedded in the service point map.

2. (Previously Presented) The communication network of claim 1 wherein the service point map manager is configured to send the new service point map to the client device.

3. (Previously Presented) The communication network of claim 2, wherein the service point map manager device selects at least one connected service for inclusion in the new service point map using server load balancing techniques.

4. (Previously Presented) The communication network of claim 3, wherein the server load balancing techniques are implemented by supplying a first service point map to the client device, wherein the first service point map has been processed for load balancing.

5. (Previously Presented) The communication network of claim 3, wherein the server load balancing techniques are implemented by supplying a first service point map to the client device, wherein the client device runs a script code in the first service point map to select the at least one connected service.

6. (Previously Presented) The communication network of claim 2, wherein the service point map manager device selects at least one connected service for inclusion in the new service point map based on the topographical location of the client device in the network.

7. **(Currently Amended)** The communication network of claim 1, wherein the ~~service point map includes supplemental service identification data comprising a client epoch~~

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value is for a second service identified in the service point map, wherein the client epoch value is used to correlate the performance of the client device and the second service.

8. (Cancelled)

9. (Previously Presented) The communication network of claim 1, wherein a second service of the plurality of services causes the client device to perform actions using executable commands in the service point map.

10. (Previously Presented) The communication network of claim 1, wherein the service point map includes backup service address information for a selected service identified in the service point map in the event that the selected service cannot be reached.

11. (Previously Presented) The communication network of claim 10, wherein the backup service address information comprises address information for a service point map manager device.

12. (Previously Presented) The communication network of claim 10, wherein the backup service address information comprises address information for an alternate server device providing the selected service.

13. **(Currently Amended)** In a client/server communication network wherein a plurality of services are located on a plurality of servers operable to connect to the network, a server computer system for:

generating a table listing comprising identities of first and second services provided by first and second servers, respectively, of the plurality of servers and first and second location information for the first and second services, respectively, wherein the first and second location information are distinct from each other, and wherein the first and second services are distinct from each other;

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sending the table listing to a client computer system for storage therein, wherein the table listing enables the client computer system to access the second service using the second location information in the table listing for the second service;
generating a new table listing after the second location information for the second service is changed to a third location information, wherein the new table listing comprises the identities of the first and second services and first and third location information for the first and second services, respectively, wherein the second and third location information are distinct from each other;
wherein the table listing is sent to the client computer system along with a client epoch value;
wherein a third service has a corresponding service epoch value, whereby the third service causes the client computer system to take corrective action at the time that a mismatch is detected between the client epoch value and the service epoch value using executable commands embedded in a service point map.

14. (Previously Presented) The server computer system of claim 13, wherein the server computer system generates the table listing based on service topology existing at the time the table listing was generated.

15. **(Currently Amended)** The server computer system of claim 13, wherein the server computer system sends the table listing to client computer system when the client computer system connects to the network.

16. (Previously Presented) The server computer system of claim 13, wherein the first service is selected from the plurality of services using a first partitioning scheme, wherein the first partitioning scheme is a functional partitioning of the plurality of services.

17. (Previously Presented) The server computer system of claim 13, wherein the first service is selected from the plurality of services using a first partitioning scheme, wherein the

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first partitioning scheme uses identification data associated with the client computer system to select the first service.

18. (Previously Presented) The server computer system of claim 13, wherein the first service is selected from the plurality of services using a first partitioning scheme, wherein the first partitioning scheme is uses a resource connection to select the first service.

19. (Previously Presented) The server computer system of claim 13, wherein the first service is selected from the plurality of services using a first partitioning scheme, wherein the first partitioning scheme uses equivalency to select the first service.

20. **(Currently Amended)** A method comprising:
in a first server of a plurality of servers transferring a dynamic service point map to a client in response to the client connecting to a computer network;
wherein the dynamic service point map comprises identities of first and second services along with first and second location information, respectively, wherein the first and second services are provided by first and second servers, respectively, and wherein the first and second services are distinct from each other;
creating a new dynamic service point map by changing the second location information for the second service to a third location information in the dynamic service point map in response to adding the second service to a third server;
the first server transferring the new dynamic service point map to the client;
wherein the new dynamic service point map comprises identities of first and second services along with first and third location information, respectively, wherein the second and third location information are distinct from each other;
wherein the service point map comprises a client epoch value;
wherein a third service has a corresponding service epoch value, whereby the third service causes the client to take corrective action at the time that a mismatch is detected between the client epoch value and the service epoch value using executable commands embedded in the service point map.

21. (Previously Presented) The method of claim 20 further comprising:
the first server receiving the second location information for inclusion in the dynamic
service point map.
22. (Previously Presented) The method of claim 20 further comprising transferring
the new service point map to the client upon failure of the client to connect to the second
service listed in the dynamic service point map.
23. **(Currently Amended)** A computer-readable medium comprising:
transferring instructions to transfer a dynamic service point map to a client process
running on a client from a first server of a plurality of servers in a network in
response to the client process connecting to the network, wherein the dynamic
service point map comprises first and second location information corresponding
to the first and second services, respectively, implemented on first and second
servers, respectively, and wherein the first and second services are distinct from
each other;
transferring instructions to transfer a new dynamic service point map to the client process
running on the client after the second location information for the second service
is changed to a third location information;
wherein the new dynamic service point map comprises identities of first and second
services along with first and third location information, respectively, wherein the
second and third location information are distinct from each other;
wherein the new dynamic service point map comprises a client epoch value;
wherein a third service has a corresponding service epoch value, whereby the third
service causes the client process to take corrective action at the time that a
mismatch is detected between the client epoch value and the service epoch value
using executable commands embedded in the new dynamic service point map.

24. (Previously Presented) The computer-readable medium of claim 23 further comprising:

generating instructions to generate the second location information, and
publishing instructions to publish the second location information for inclusion in the
dynamic service point map.

25. (**Currently Amended**) The computer-readable medium of claim 23 further comprising:


second transferring instructions to transfer the new ~~updated~~ dynamic service point map to
the client process upon failure of the client process to connect to second service
listed in the dynamic service point map.

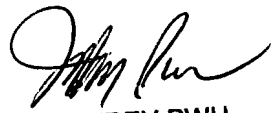
Reason for allowance

5. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach wherein the new dynamic service point map comprises a client epoch value; and wherein a third service has a corresponding service epoch value, whereby the third service causes the client process to take corrective action at the time that a mismatch is detected between the client epoch value and the service epoch value using executable commands embedded in the new dynamic service point map in lights of other limitation described in independent claims 1, 13, 20 and 23.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)..

Liang-che Alex Wang 
October 11, 2007


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SUPERVISORY PATENT EXAMINER